

REMARKS

Claims 1-25 are of record pending in this case. Claims 1, 2, 5, 7, 9, 11, 12, 13, 14, 17, 19, 22, 23 and 25 are hereby amended, claims 10, 18 and 21 are cancelled and no claims are added. As a result, Claims 1-9, 11-17, 19, 20 and 22-25 remain pending in this case, and are all presently in issue. Note, the amendments to the claims are intended to clarify and/or more accurately define the embodiments claimed here.

Applicants respectfully request reconsideration of the outstanding rejections and allowance of all claims 1-9, 11-17, 19, 20 and 22-25. The objections/rejections raised in the Office Action of August 21, 2003 (the OA), will now be addressed *seriatim*.

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The Rejection Under 35 U.S.C. 112, second paragraph

Claims 7, 10, 13, 14, 18, 21, and 23 stand rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention.

Applicants note that all of the claims rejected here have either been canceled (see claims 10, 18 and 21) or have been amended to further clarify and/or more accurately define the processes claimed thereby (see claims 7, 13, 14 and 23). Applicants respectfully submit that the issues raised have thus been obviated and can be withdrawn. Action to this end is respectfully requested.

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Claim Rejections – 35 U.S.C. §102(b)

Claims 1, 2, 4, 6-8, 10-16, 18, 19 and 21-24 stand rejected in the Office Action under 35 U.S.C. §102(b) as allegedly anticipated by Kydd (U.S. Patent No. 5,882,722).

Applicants respectfully note that claim 1 has been amended hereby, and thus it and all remaining claims dependent thereon (e.g., the other remaining claims rejected here; namely, claims 2, 4, 6-8, 11-16, 19 and 22-24) decidedly define over Kydd regardless the assertions of the outstanding Office Action anticipation rejection. In particular, Kydd fails to teach “providing an ink comprising a metallic chelate, the metallic chelate having at least one constituent selected from the group consisting of: hfa, COD, VTMS, H₂O, tetraglyme, diglyme, SEt₂, and trimethylphosphine” as set forth in Applicants’ claim 1. Applicants therefore submit that this rejection is obviated or moot and kindly ask for reconsideration and withdrawal thereof.

As a further note, Applicants do not admit that Kydd anticipated the subject matter of the former claim 1 for many reasons, including the facts that Kydd required large metallic particles mixed with the metallo-organic compositions thereof, Kydd disclosed thick film creations, and Kydd used a multiple heat process, heating after the “printing” step. These and other essential distinctions are/were incompatible with Applicants’ “consisting essentially of” claim format.

In any case, the anticipation rejections of Claims 1, 2, 4, 6-8, 10-16, 18, 19 and 21-24 under 35 U.S.C. §102(b) have hereby been obviated and/or traversed and can be withdrawn and the remaining of these claims; namely claims 1, 2, 4, 6-8, 11-16, 19 and 22-24, may then be noted allowed. Reconsideration and action to this end is respectfully requested.

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Claim Rejections – 35 U.S.C. §103(a)

Claims 1-25 stand rejected in the Office Action under 35 U.S.C. §103(a) as obvious over Awaya, et al. (U.S. Patent No. 5,316,796) apparently alone or further in view of Kydd (U.S. Patent No. 5,882,722).

Again, Applicants wish to note the amendments to present claim 1 prior to exploring the failures of the cited art. Applicants note the Examiner’s admission that Kydd fails to teach the precursors; however, Awaya also fails in this regard. More specifically, and respectfully contrary to the assertion in the OA (page 4, lines 14-15), Applicants note that Awaya indeed does not teach a copper precursor of Cu(hfa)•VTMS.

Moreover, Awaya further fails to remedy the lackings of Kydd because there is no particular indication in the OA (or the references for that matter) how any such combination of the teachings of these disparate references would be achieved, let alone how any such combination would provide the methods (and/or compositions) of the present invention.

Note, as stated in the *MPEP* (8th Edition, August 2001), §706.02(j), second full paragraph, page 700-31; a *prima facie* case of obviousness requires the establishment of three criteria: 1) a suggestion or motivation to modify or combine reference teachings, 2) a teaching of a reasonable expectation of success, and 3) a teaching of all of the claim limitations. Any combination of Kydd and Awaya, at the very least, does not provide a suggestion or motivation to modify or combine the teachings; nor even of any reasonable expectation of success of and/or for the characteristic(s) claimed here. As a result, it is not clear from these references how or in what way, let alone why anyone would want to perform the currently claimed methods.

In particular, Awaya is a reference from the art of chemical vapor deposition (CVD) which is not ink-based and thus unlike Kydd (or Applicants’ disclosure). The CVD process is very different because it uses deposits from the gas phase in a vacuum chamber (less than ambient/atmospheric pressures). In other words, the precursor, including the metallic substance,

is in a gas phase prior to and during the deposition on the substrate. It is not until the gas precursor comes into contact with the substrate that the metallic substance is transformed from the gas phase to a solid, grown on the substrate. This is distinct from Kydd (and Applicants' situation) where a liquid/solution phase "ink" is directly deposited (i.e., printed) on the substrate at atmospheric or ambient pressures. There is no teaching or suggestion in the record how anyone would take a gas phase substance from the CVD process and attempt to use it in the ink-based environment. There is further no suggestion, let alone any reasonable expectation, for any success for such a leap. Thus, Awaya is not combinable with Kydd.

The obviousness rejections of Claims 1-25 under 35 U.S.C. §103(a) is therefore obviated and/or traversed and can be withdrawn and the remaining of these claims, namely, 1-9, 11-17, 19, 20 and 22-25 may then be noted allowed. Reconsideration and action to this end is respectfully requested.

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All of the objections/rejections presented in the Office Action of August 21, 2003, have hereby been fully obviated/traversed, and can thus be withdrawn. Action to this end is respectfully requested so that claims 1-9, 11-17, 19, 20 and 22-25 may then be allowed and this case passed to issue. If there are any questions, or if prosecution can be expedited in any manner by a telephonic conference, the Examiner is urged to call the undersigned at the below-printed telephone number.

11/18/03
Date

Respectfully submitted,

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